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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,513	11/30/2001	Gregory T. Noren	1662-50500 JMH (P99-2795)	6516
23505	7590	05/07/2004	EXAMINER CHEN, CHONGSHAN	
CONLEY ROSE, P.C. P. O. BOX 3267 HOUSTON, TX 77253-3267			ART UNIT 2172	
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DATE MAILED: 05/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/998,513

Applicant(s)

NOREN, GREGORY T.

Examiner

Chongshan Chen

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2172

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

1. Claims 1-29 are pending in this Office Action.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Peng (Pub. No.: US 2002/0156863 A1).

As per claim 1, Peng teaches a method of backing up a file, comprising:

making a change to an original version of a file thereby creating a new version of the file (Peng, page 1, [0007], “the set of files is updated by applying the at least one difference file to the set of files and updating at least one table in the database”);

saving said new version (Peng, page 1, [0007]-[0008]);

computing a transformation operator which is indicative of the differences between the original version of the file and the new version (Peng, page 3, [0042], “calls the difference calculator to generate one or more difference files”); and

saving said transformation operator (Peng, page 6, [0065], “saving the difference file”).

As per claim 2, Peng teaches all the claimed subject matters as discussed in claim 1, and further teaches saving said transformation operator in a separate file (Peng, page 6, [0065]).

As per claim 3, Peng teaches all the claimed subject matters as discussed in claim 2, and further teaches said separate file containing said transformation operator is stored on a storage medium that also contains said new file version (Peng, page 1, [0007]-[0008]).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peng (Pub. No.: US 2002/0156863 A1).

As per claim 4, Peng teaches all the claimed subject matters as discussed in claim 3, except for explicitly disclosing said storage medium comprises a RAID storage subsystem. However, it is well known in the art that RAID storage improves the reliability of the system and data. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use RAID storage in the system of Peng in order to improve reliability of system and data.

As per claim 5, Peng teaches all the claimed subject matters as discussed in claim 1, except for explicitly disclosing said transformation operator includes a difference value, said difference value being the difference between a numerical value in the original file version and a numerical value in the new file version. However, Peng teaches the difference calculator generates one or more difference files (Peng, page 3, [0042]). It is obvious that the difference

disclosed in Peng includes difference between a numerical value in the original file version and a numerical value in the new file version.

As per claim 6, Peng teaches all the claimed subject matters as discussed in claim 1, except for explicitly disclosing said transformation operator includes words or binary encoded values that have been deleted from the original file version to produce the new file version. However, Peng teaches the difference calculator generates one or more difference files (Peng, page 3, [0042]). It is obvious that the difference disclosed in Peng includes words or binary encoded values that have been deleted from the original file version to produce the new file version.

As per claim 7, Peng teaches all the claimed subject matters as discussed in claim 6, except for explicitly disclosing said transformation operator also includes words or binary encoded values that are present in the new file version but are not present in the original file version. However, Peng teaches the difference calculator generates one or more difference files (Peng, page 3, [0042]). It is obvious that the difference disclosed in Peng includes words or binary encoded values that are present in the new file version but are not present in the original file version.

As per claim 8, Peng teaches all the claimed subject matters as discussed in claim 1, except for explicitly disclosing making a further change to said new file version to create a second new file version, saving said second new file version, computing a second transformation operator which is indicative of the differences between the new file version and the second new file version, and saving said second transformation operator. However, Peng teaches making changes to a file and calculating the difference between the old and new files. It is obvious that

the method can be applied over and over. Therefore, the system of Peng is capable of making a further change to said new file version to create a second new file version, saving said second new file version, computing a second transformation operator which is indicative of the differences between the new file version and the second new file version, and saving said second transformation operator.

As per claim 9, Peng teaches all the claimed subject matters as discussed in claim 1, except for explicitly disclosing making a further change to said new file version to create a second new file version, saving said second new file version, computing a second transformation operator which is indicative of the differences between the original file version and the second new file version, and saving said second transformation operator. However, Peng teaches making changes to a file and calculating the difference between the old and new files. It is obvious that the method can be applied over and over. Therefore, the system of Peng is capable of making a further change to said new file version to create a second new file version, saving said second new file version, computing a second transformation operator which is indicative of the differences between the original file version and the second new file version, and saving said second transformation operator.

6. Claims 10-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harder ("Harder", "Microsoft Windows XP System Restore", April 2001).

As per claim 10, Harder teaches a method of recovering an original version of a file that has been overwritten by a new version of the file, comprising:

applying said transformation operator to the new file version (Harder, page 1, "system restore, ..., which allow users to revert the system back to a previous time").

Harder does not explicitly disclose retrieving a transformation operator which is indicative of the differences between the original version of the file and the new file version. However, Harder teaches applying a change to a current file, the change is a difference between old file and current file, and revert the current file back to the old file. It is obvious that the system must first retrieve the difference between old file and current file in order to apply the difference to the current file. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the retrieving step in the system of Harder in order to retrieve the difference and apply the difference to the current file to revert the current file to its old form.

As per claim 11, Harder teaches all the claimed subject matters as discussed in claim 10, and further teaches said transformation operator is stored in a separate file (Harder, page 5).

As per claim 12, Harder teaches all the claimed subject matters as discussed in claim 10, and further teaches said separate file containing said transformation operator is stored on a storage medium that also contains said new file version (Harder, page 5).

As per claim 13, Harder teaches all the claimed subject matters as discussed in claim 12, except for explicitly disclosing said storage medium comprises a RAID storage subsystem. However, it is well known in the art that RAID storage improves the reliability of the system and data. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use RAID storage in the system of Harder in order to improve reliability of system and data.

As per claim 14, Harder teaches all the claimed subject matters as discussed in claim 10, except for explicitly disclosing said transformation operator includes a difference value, said

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difference value being the difference between a numerical value in the original file version and a numerical value in the new file version. However, Harder teaches storing the change from the old file to the current file. It is obvious that the change includes a difference value, said difference value being the difference between a numerical value in the original file version and a numerical value in the new file version.

As per claim 15, Harder teaches all the claimed subject matters as discussed in claim 10, except for explicitly disclosing said transformation operator includes words or binary encoded values that have been deleted from the original file version to produce the new file version. However, Harder teaches storing the change from the old file to the current file. It is obvious that the change includes words or binary encoded values that have been deleted from the original file version to produce the new file version.

As per claim 16, Harder teaches all the claimed subject matters as discussed in claim 10, except for explicitly disclosing said transformation operator also includes words or binary encoded values that are present in the new file version but are not present in the original file version. However, Harder teaches storing the change from the old file to the current file. It is obvious that the change includes words or binary encoded values that are present in the new file version but are not present in the original file version.

As per claim 17, Harder teaches a computer system, comprising:

storage device containing files and containing a transformation operator which is indicative of the differences between a first version of a file and a second version of the file (Harder, page 5).

Harder does not explicitly disclose a processor and an input coupled to said processor. However, the restore function of Harder is used in the computer system. It is obvious that a computer system include a processor and an input coupled to said processor.

Claims 18-22 are rejected on grounds corresponding to the reasons given above for claims 11-16.

As per claim 23, Harder teaches all the claimed subject matters as discussed in claim 17, except for explicitly disclosing said second file version has been changed further into a third file version, and said storage device also contains a second transformation operator which is indicative of the differences between the second file version and the third file version. However, Harder teaches the system can set many restore points. Each restore point stores the change from that point to the current time. The user can revert the file back to a old form, and then revert the old file to a even older form, or the user can skip the restore points in between and directly revert the file to the oldest form. Therefore, it is obvious the system of Harder is capable of changing said second file version into a third file version, and said storage device also contains a second transformation operator which is indicative of the differences between the second file version and the third file version.

As per claim 24, Harder teaches all the claimed subject matters as discussed in claim 17, except for explicitly disclosing said second file version has been changed further into a third file version, and said storage device also contains a second transformation operator which is indicative of the differences between the first file version and the third file version. However, Harder teaches the system can set many restore points. Each restore point stores the change from that point to the current time. The user can revert the file back to a old form, and then revert the

old file to a even older form, or the user can skip the restore points in between and directly revert the file to the oldest form. Therefore, it is obvious the system of Harder is capable of changing said second file version into a third file version, and said storage device also contains a second transformation operator which is indicative of the differences between the first file version and the third file version.

Claims 25-29 are rejected on grounds corresponding to the reasons given above for claims 17-24.


Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chongshan Chen whose telephone number is 703-305-8319. The examiner can normally be reached on Monday - Friday (8:00 am - 4:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Breene can be reached on (703)305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

April 30, 2004


SHAHID ALAM
PRIMARY EXAMINER